

TOSHIHIRO WADA

VĀSUDEVA ON THE VYĀPTIPAÑCAKA SECTION  
OF GAṆGEŚA'S *TATTVACINTĀMAṆI* (1)

1. *Introduction*

Navya-nyāya began with Udayana,<sup>1</sup> who lived in the 11<sup>th</sup> century,<sup>2</sup> and the system of this school was consolidated by Gaṅgeśa, who lived in the 14<sup>th</sup> century. Gaṅgeśa discusses the theory of inference in the second book, i.e., the “Inference Book” (*Anumānakhaṇḍa*), of his *Tattvacintāmaṇi* (*TC*).<sup>3</sup> One of logical grounds for inference is invariable concomitance (*vyāpti*), which is the relation between a probans (*liṅga*, *hetu*, *sādhana*) and its probandum (*sādhya*) and which is considered a property (*dharma*) of a valid probans. Gaṅgeśa attempts to establish the definition of this relation in the second chapter of the “Inference Book”, i.e., the “Invariable Concomitance Chapter” (*Vyāptivāda*), where he examines twenty-one provisional definitions and formulates one conclusive definition as well as seven additional definitions which can be also regarded as correct in particular cases.

---

1. On the origin of Navya-nyāya, see Wada [2000a: 108] [2001: 519-521]. For a full discussion about this topic, see Wada [1999a] [2004a].

2. On the date of the Nyāya-Vaiśeṣika authors who lived before the 14th century and the Navya-nyāya authors dealt with in this paper, see Potter [1977: 9-12], and Potter and Bhattacharyya [1993: 10-13] respectively.

3. Vidyabhusana [1921: 407-453], and Potter and Bhattacharyya [1993: 85-312] give a summary of the *TC*.

The “Five Definitions of Invariable Concomitance Section” (Vyāptipañcaka) is the first section of that chapter; this section deals with only five of the provisional definitions and concludes that none of them is satisfactory, all for the same reason. Later Navya-nyāya philosophers wrote commentaries on the *TC*; of which the *Tattvacintāmaṇidīdhiti* of Raghunātha Śīromaṇi, who flourished around 1510, is of vital importance. This text contains his commentary on Gaṅgeśa’s “Five Definitions of Invariable Concomitance Section”. According to Gopikamohan Bhattacharya [1968: 70],<sup>4</sup> Raghunātha’s commentary offers an explanation as to why the five definitions are listed in their particular order in the “Five Definitions of Invariable Concomitance Section” of the *TC*; for this reason Raghunātha’s commentary on this section came to be regarded as the standard introduction to the study of Navya-nyāya.

On the other hand, the *Tattvacintāmaṇisārāvalī*<sup>5</sup> (*TCS*) of Vāsudeva Sārvabhauma, who was the teacher of Raghunātha and lived in the 15<sup>th</sup> century, also presents an explanation of why those five definitions are placed in their particular order. However, Vāsudeva’s commentary on Gaṅgeśa’s “Five Definitions of Invariable Concomitance Section” did not attain the same popularity and status as Raghunātha’s commentary on the same section. The reasons for this are not within the scope of the present paper, but would deserve further research. In this paper I will investigate how Vāsudeva rationalizes the order of the five definitions, by translating and analyzing Vāsudeva’s “Five Definitions of Invariable Concomitance Section”. I will also illustrate the logical structure of the definitions improved upon by Vāsudeva by means of the diagrams which I have been using in my book and papers.<sup>6</sup>

As I have translated and analyzed Gaṅgeśa’s “Five Definitions of Invariable Concomitance Section” elsewhere,<sup>7</sup> I will avoid doing the same here. For the convenience of the reader, I have provided the Sanskrit text and a translation of Gaṅgeśa’s “Five Definitions of

4. This paper is reproduced as G. Bhattacharya [1978: 29-39].

5. Potter and Bhattacharyya [1993: 490] report that this Sanskrit text is called the *Sārāvalī* according to Gaurinath Sastri, while it is called the *Parīkṣā* according to Gopikamohan Bhattacharya.

6. On the system of the diagrams I have used in the present paper, see Wada [1990: 66-67]. On the history of the diagrams, see Wada [1995a].

7. Wada [2003]. See also n. 3.

Invariable Concomitance Section” in the beginning of Section 3 of the present paper. As for the text of Vāsudeva’s “Five Definitions of Invariable Concomitance Section” in his *TCS*, I have used the edition included in the following paper:

Gopikamohan Bhattacharya [1967]: “Tattvacintāmaṇīṭikā”, *Anvikṣā: Research Journal of the Department of Sanskrit* 3 (2) / 4 (1): 178-179.

No translation of this text in a modern non-Indian language is available, but a few sections of the *TCS* have been translated by E. Frauwallner.<sup>8</sup>

In order to understand Vāsudeva’s method of analyzing the definition of invariable concomitance, we first need to determine the meaning of ‘definition’ (being here a rendering of *lakṣaṇa*) in the discussion of invariable concomitance. Section 2 of the present paper clarifies that meaning, and, in addition, provides a method of illustrating the logical structure of the definition. Section 3 contains a translation and analysis of Vāsudeva’s “Five Definitions of Invariable Concomitance Section”.

## 2. The Definition of invariable cocomitance and its logical form

### 2.1 The Definition of Invariable Concomitance<sup>9</sup>

When Gaṅgeśa seeks the definition of invariable concomitance, he examines whether it applies to a valid probans (*saddhetu*) or not.<sup>10</sup> This fact implies that he regards the valid probans as the definiendum (*lakṣya*). Since invariable concomitance can be considered as the coexistence of a valid probans with its probandum (*sādhya*), such coexistence is a property residing in the valid probans. That the

---

8. Frauwallner [1966][1967][1970] translates and explains the “Absence of that Qualified by a Property Sharing no Locus Section” (Vyadhikaraṇadharmāvacchinnābhāva), the “Generic Absence Section” (Sāmānyābhava), and the “Conclusive Definition Section” (Siddhāntalakṣaṇa) of the *TCS*. Wada [2000b: 473-483] provides a Japanese introduction to a translation and analysis of the “Five Definitions of Invariable Concomitance Section” of the *TCS*. Yamamoto [1998: 38-40] clarifies Vāsudeva’s concept of subjectness (*pakṣatā*).

9. This sub-section is based on Wada [1990: 47-50] [1995b: 274-279].

10. Gaṅgeśa’s method of examination is clearly found in his “Five Definitions of Invariable Concomitance Section” (Ingalls [1951: 86]).

*lakṣaṇa* applies to a valid probans (definiendum) means that the *lakṣaṇa* exists in or on the valid probans.<sup>11</sup> A valid probans is the probans of a valid inference. Since invariable concomitance is a property residing in a valid probans, invariable concomitance and its *lakṣaṇa* exist in one and the same locus, the valid probans. The definition of invariable concomitance is the description of invariable concomitance itself (*svarūpalakṣaṇa*).<sup>12</sup>

Next we need to examine how a valid probans and its probandum are related to a pervaded entity (*vyāpya*) and a pervader (*vyāpaka*), both of which terms frequently appear in the discussion of Indian logic in general. We need to formulate clear concepts of these two terms. When we can say that wherever *x* exists *y* also exists, *x* is pervaded by *y*; *y* is the pervader of *x*. Let us take for example the inference “the mountain possesses fire, because it possesses smoke”. Since we understand that wherever there is smoke, there is also fire, smoke is the pervaded entity of fire; fire is the pervader of smoke. Smoke is the valid probans of that inference, so a valid probans is a pervaded entity.

In the present example we should not consider that fire ‘subsumes’ smoke. If this were true, all smoke would be fire, which is false.<sup>13</sup> To be precise, the locus of fire ‘subsumes’ the locus of smoke. Apart from the inference, we can assume the locus of fire ‘subsumes’ that of smoke, or that fire ‘pervades’ smoke. This implies that these two terms, pervader and pervaded, are not necessarily connected with the inference. Rather, part of the ‘pervaded’ entities is the probans; part of the pervaders is the probandum.

Thus, invariable concomitance is a property residing in the probans, or, more precisely, in a pervaded entity. Practically speaking, it is easier to examine whether a property regarded as the definition of invariable concomitance exists in the probans than whether the property exists in a pervaded entity. That is because we can more easily determine what the probans is than what the pervaded entity is. This is

11. On this, see Wada [1990: 100-102].

12. On the concept of definition in Navya-nyāya, see Wada [1990: 99-105]. Jhalakikar [1978: 698] and Ishitobi [1978: 465] refer to this point.

13. This becomes more intelligible if we think of the following example: we generally say that the concept ‘mammal’ subsumes the concept ‘human being’, so it is true to say that all human beings are mammals.

the reason why most inferences, which are used to test the definitions, are those whose logical validity is easily proved.<sup>14</sup>

If the property regarded as the definition exists in a valid probans, the definition is proved correct. However, Gaṅgeśa and Vāsudeva in fact test whether the ‘definition’ exists in a valid probans and in an invalid probans. If it does not exist in a valid probans, it suffers from the defect of narrow-application (*avyāpti*). If it exists in an invalid probans, it suffers from the defect of over-application (*ativyāpti*). If it does not exist in any probans, it suffers from the defect of non-application (*asambhava*).<sup>15</sup> By overcoming these defects one by one, the given definition is improved upon.

## 2.2 Logical Form of the Definitions<sup>16</sup>

It is important to show the formal structures of the definitions of invariable concomitance. These formal structures have in the past been expressed mainly in terms of symbolic logic.<sup>17</sup> This method is, of course, valuable, but in the present paper I would like to demonstrate another method of illustrating the formal structure of the definitions. This method is to use diagrams such as Figure 1 below.

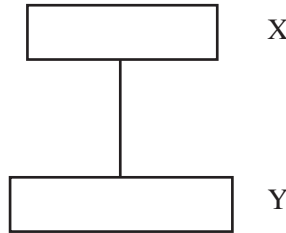


Figure 1.

14. On the characteristics of, for example, Raghunātha's inferences, see Wada [1989].

15. On these three defects, see Wada [1990: 102-103].

16. This sub-section is based on Wada [1995b: 275-279].

17. It is possible to schematize the structure of the definitions formulated by Gaṅgeśa and others, since they are more complicated than previous definitions formulated by Udayana and so forth. On the research based on symbolization, see Wada [1995a: 150]; Miyamoto and Ishitobi [1998: 5-11].

In Figure 1 rectangle X represents a property (*dharma*), and rectangle Y represents its possessor (*dharmin*). The line between X and Y indicates the relation between the entity (*x*) denoted by X and the entity (*y*) denoted by Y. A property is that which exists in something,<sup>18</sup> and its possessor is that in which the property exists, or it is the locus of the property.<sup>19</sup> For example, we look at a blue pot. The blue color of the pot is a property of the pot, and the pot is the property-possessor of this color. This is an example in which the property is abstract. To give an example in which the property is concrete, suppose we look at a book on the table. The book is a property of the table, and the table is the property-possessor of the book.

Since I regard the property and property-possessor relation as the most basic in Navya-nyāya analysis,<sup>20</sup> I have drawn the diagram representing this relation first. A property may be designated as an occurrent (*vṛttin*), and its property-possessor as a locus (*adhikaraṇa*). When a property is called a contained entity (*ādheya*), its property-possessor is called a container (*ādhāra*). When a property is called a superstratum (*āśrita*), its property-possessor is called a substratum (*āśraya*).

The relation indicated by the line can be ‘a contact’ (*saṃyoga*), inherence (*samavāya*), or a self-linking relation (*svarūpasambandha*). In Navya-nyāya a self-linking relation is designated as a particular qualifier-ness relation (*viśeṣaṇatāvīśeṣasambandha*) or simply as a qualifier-ness relation (*viśeṣaṇatā*). Among these kinds of relation, the relation of contact is the physical connection between two substances (*dravya*) which can exist separately. For example, when there is a pot on the ground, the pot exists on the ground through contact. The relation of inherence is the relation between two entities which cannot exist separately or either of which cannot exist separately.<sup>21</sup> For example, when

18. Here the term *dharma* is used in a limited sense. In a wider sense it means a component of the world, such as a thing, a property, a relation, or a state. On this, see Tachikawa [1981: 3].

19. In Navya-nyāya the property-possessor is not always the locus of its property.

20. On this, I have followed Tachikawa [1981: 42].

21. The relation of inherence is accepted by Navya-nyāya only in five cases: (1) the whole and its parts, (2) a quality and a substance, (3) an action and a substance, (4) a generic property (*jāti*, *sāmānya*) and a manifested entity (*vyakti*, i.e., a substance, a quality, and an action), and (5) a particular (*viśeṣa*) and an eternal substance (i.e., an atom, space, time, direction, a soul, and mind). (*nityasambandhaḥ samavāyaḥ. ayutasiddhāvṛttiḥ. yayor*

there is a blue pot, blue color exists in the pot through inherence. A self-linking relation is that which is regarded as identical with one of its two relata.<sup>22</sup> To give an example, when there is a pot, this pot is considered to exist in time because the pot exists for a certain period only. Navya-nyāya regards the relation between the pot and time as time itself.

These three kinds of relation are classified as occurrence-exacting (*vr̥ttiniyāmaka*) relations, one of the two traditional types of relation in Navya-nyāya.<sup>23</sup> An occurrence-exacting relation is that through which an entity can exist in or on another entity. The other category of relation is non-occurrence-exacting (*vr̥ttyaniyāmaka*) relation.<sup>24</sup> This is a relation through which an entity cannot exist in or on another entity. All relations other than occurrence-exacting ones belong to this category.<sup>25</sup>

It is an underlying assumption that ‘relation’ in the above explanation means a direct relation (*sākṣātsambandha*).<sup>26</sup> The relation of identity (*tādātmya*) also belongs to this type. The other type of relation is indirect relation (*paraṃparāsambandha*), which connects two entities through more than one direct relation.<sup>27</sup>

In Figure 2, the dotted line indicates the relation through which the entity denoted by X does not exist in or on the entity denoted by Y. In other words, the dotted line implies the relation whose existence is negated between these two entities.

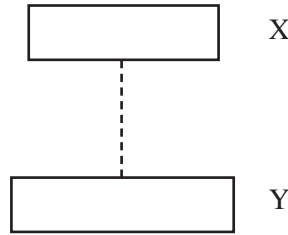


Figure 2.

*dvayor madhya ekam avinaśyad aparāśritam evāvatīṣṭhate tāv ayutasiddhau. yathāvayavā-vayavināu guṇaguṇināu kriyākriyāvantau jātivyaktī viśeṣanīyadravye ceti. TS, p. 61, 18-20.)*

22. On the self-linking relation, see Matilal [1968: 41-44].

23. For the Sanskrit source, see *Navyanyāya-Bhāṣāpradīpa*, p. 16,3.

24. On this relation, see Ingalls [1951: 73].

25. On this issue, see Ingalls [1951: 73].

26. For the Sanskrit source, see *Navyanyāya-Bhāṣāpradīpa*, p. 10,4.

27. *Navyanyāya-Bhāṣāpradīpa* (p. 13,4-5) reads ‘*sambandhāntaraghaṭitaḥ... sambandhaḥ paraṃparāsambandhaḥ*’. See also Ingalls [1951: 72].

In order to demonstrate a diagram applied to an example of this, suppose we look at a blue pot and recognize that the pot does not possess red color. The connection among blue color, the pot, and red color can be illustrated in Figure 3.

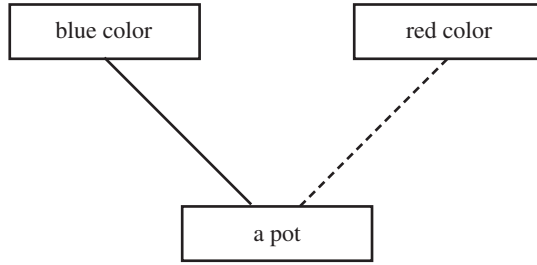


Figure 3.

Color exists in a substance through inherence and does not exist there through contact. Hence, the dotted line can indicate contact whose existence is denied between red color and the pot. Moreover, since red color does not exist in the blue pot even through inherence, the line can indicate inherence whose existence is denied between red color and the pot. To be precise, the dotted line can imply any relation whose existence is negated between red color and the pot, because red color does not reside in the blue pot through any relation.<sup>28</sup>

Navya-nyāya employs several basic concepts concerning relation,<sup>29</sup> and we require more diagrams to illustrate the relation involved in those concepts. However, it is not necessary to demonstrate those diagrams here, and they will be shown later when needed.

The two advantages of using symbols as stated by Goekoop also apply to my use of diagrams: “(1) It enables us to prove the logical equivalence or divergence of the definition of pervasion,” and (2) “We can easily distinguish, among the definitions of pervasion, the logical variants

28. In Navya-nyāya, red color can exist in a blue pot through a special relation. It is a temporal relation, through which any non-eternal entity can exist in another non-eternal entity. This relation is briefly explained by Matilal [1968: 43-44]. But as it does not bear directly upon the present discussion, it is not taken into account here.

29. They are ‘*viśeṣaṇa*’ (qualifier), ‘*nirūpaka*’ (describer), and ‘*avacchedaka*’ (delimitor). For these concepts, see Wada [1990: 45-98]. On how these three concepts are related to one another, see Wada [1990: 59, 66, 76] [2001: 521-527].



from the verbal variants”.<sup>30</sup> I would like to add a third advantage, which is that the diagram enables us to easily confirm whether the definitions to be tested properly apply to the valid and the invalid probantia.<sup>31</sup> Moreover, the diagrams serve as a visual aid and help readers to more easily understand the complicated structure compressed in the definitions.

### 3. Vāsudeva’s “Five Definitions of Invariable Concomitance Section”

I have reproduced the edited text and notes presented by G. Bhattacharya [1967] with his numbers. Where I do not follow his reading, I have provided my reading with an asterisk and referred to his reading in the editorial notes. For the convenience of the reader, I have provided below the Sanskrit text and a translation of Gaṅgeśa’s “Five Definitions of Invariable Concomitance Section”. The text and translation is a reproduction from Wada [2003: section 3]; for my analysis of Gaṅgeśa’s text, I refer the reader to that paper.

#### GAṆGEŚA’S TEXT

*nanu anumitihetuvyāptijñāne kā vyāptiḥ na tāvad avyabhicaritatvaṃ, tad dhi na sādhyābhāvavadavṛttitvaṃ sādhyavadbhinnasādhyābhāvavadavṛttitvaṃ sādhyavatpratīyogikānyonyābhāvāsāmānādhikaraṇyaṃ sakalasādhyābhāvavanniṣṭhābhāvapratīyogitvaṃ sādhyavadanyāvṛttitvaṃ vā kevalānvayīny abhāvād.*

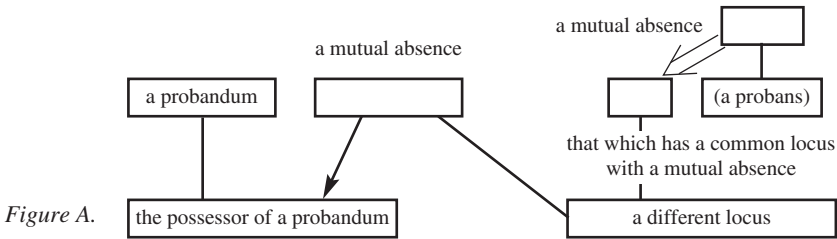
TRANSLATION: But now, what is invariable concomitance in [that] cognition of invariable concomitance which is the cause of an inferential cognition? Indeed, [it is] not non-deviation [of a probans from the probandum]. The reason for this is that it is not [non-deviation defined as] (1) the non-occurrence [of a probans] in the possessor of the absence of the probandum, (2) the non-occurrence of [a probans] in the possessor of the absence of the probandum which

30. See Goekoop [1967: 30].

31. My diagrams are similar to those of Goekoop [1967: 4, 112-116, 124-125]. But he did not intend to analyze the structure of the world as conceived by Indian realists or to formalize the definition of invariable concomitance by the use of diagrams. He devised his diagrams solely to explain part of the process of applying the definition of invariable concomitance to individual cases. Matilal [1972: 172] evaluates Goekoop’s diagrams as being much more than symbolic transcriptions of the definitions.

absence occurs in what is different from the possessor of the probandum, (3) the state [possessed by a probans] of having no common locus with a mutual absence whose counterpositive is the possessor of the probandum,<sup>32</sup> or (4) the state [possessed by a probans] of being the counterpositive of an absence which exists in all possessors of the absence of the probandum, or (5) the non-occurrence [of a probans] in what is different from the possessor of the probandum, since [any of these five states] does not exist in an unnegatable [probans].

32. This note should have been given in Wada [2003: 75]. The logical structure of the third definition would be identical with that of the fifth definition (Wada [2003: 76 Figures 8 and 10]), and so either definition may be meaningless. It may be true that Gaṅgeśa presents both these two definitions because their expressions differ from one another. I would like to point out the possibility that he interprets ‘which [absence] occurs in what is different from the possessor of the probandum’ (*asāmānādhikaraṇya*) in the third definition in other ways. If we can interpret the third definition as “the state [possessed by a probans] of being different from that which has a common locus with a mutual absence whose counterpositive is the possessor of the probandum”, we can illustrate its structure in Figure A.



Furthermore, for example, Mathurānātha provides two possible ways of interpreting ‘the property of having a locus different from that of a probandum’ (*sādhyaavaiyadhykaraṇya*): (1) the occurrence in what is different from the locus of a probandum (*sādhyaavadbhinnavṛttiva*) and (2) non-occurrence in the locus of a probandum (*sādhyaavadavṛttiva*). On these two interpretations, see Wada [1998b: 3 Text 12]. If we take an interpretation similar to (2) for the above expression of the third definition, its structure would be identical with that of the fifth one. If we take an interpretation similar to (1), the structure would be different from that of the fifth one. Raghunātha does not state anything about a difference between the two definitions (Ingalls [1951: 154-155]), while Mathurānātha states that there is a difference between them. However, the difference referred to by Mathurānātha is that the third definition contains the word ‘locus’ (*adhikaraṇa*) (Ingalls [1951: 136]), which is not of vital importance from a logical point of view. Staal [1960: 122], Goekoop [1967: 63], and Uno (Ishitobi) [1977: 643] analyze the five definitions with the help of symbolic notations. Staal applies different symbolic formulae to the third and fifth definitions, but he considers both to be equivalent. Goekoop and Uno (Ishitobi) hold that both definitions are expressed by the same formula.

The translation of the third definition provided in Wada [2003: 73] is inappropriate due to printing mistake. I would like to refer the readers to the translation given in the present paper.

## VĀSUDEVA'S TEXT:

TEXT 1: *yathoktalakṣaṇopodghātena prāmāṇyanirvāhakatvasaṃgatyā ca vyāptipakṣadharmatayor abhidhānaprāptau karaṇībhūtajñāne viśayatayā pramāṇyaparāmarśe vyāpter viśeṣaṇatayā prathamam buddhyārūḍhatvasam-bandhāt vyāptim ādau* <sup>(6)</sup> *nirūpayitum ākṣipati nanv iti. anumitihetu ity anena upodghāto darśitaḥ, vyāptyantare vivādābhāvo 'pi sūcitaḥ. anumitikara-ṇajñānam prāmāṇikaviśayakam na veti, vyāptitvam paramārthasadvṛtti na veti, vyāptir anumityupayoginī na veti vā vipratipattiparair* <sup>(7)</sup> *api saṃvṛtti-siddhāyā vyāptes tattvasya vopagamāt.*

EDITORIAL NOTES: (6) *prāmāṇyāt parāmarśe vyāpter viśeṣaṇatayā... sambhavāptim ādau Ms.*; (7) *vipratiparair Ms.*

TRANSLATION: When [Gaṅgeśa] begins to explain [two properties of the probans, i.e.,] invariable concomitance and the state of being a property of a subject, due to the introduction of the definition [of inferential cognition] and the explanatory connection to the truth [of such a cognition], [he] first determines invariable concomitance on account of invariable concomitance which is [part of] the object of the cognition (i.e., ascertainment) which is the cause [of inference] being first reflected in [such a] cognition as a qualifier of the true ascertainment. For this task, [he begins the discussion with] 'But now etc.' An introduction [to the determination of invariable concomitance] is shown [by Gaṅgeśa] with the expression 'the cause of inferential cognition', and it is also pointed out [by him] that with reference to invariable concomitance [being the cause of inferential cognition] there is no dispute. The reason [for the above claim] is as follows: the objections whether cognition which is the cause of inferential cognition can be true to its object or not, whether the state of invariable concomitance occurs in the state of the highest reality or not, or whether invariable concomitance produces inferential cognition or not do not differ in [accepting] that invariable concomitance is established [as the cause of inferential cognition] in daily experience. Or another reason is that the true nature of [invariable concomitance] is accepted.

NOTES: This text mentions the relation between invariable concomitance, a probans, a subject (*pakṣa*), and inferential cognition (*anumiti*), and points out the importance of invariable concomitance with reference to inference-theory. At the beginning of the "Inference Book" of his *TC* Gaṅgeśa defines inferential cognition and inference (*anumāna*), the means of obtaining it, as follows: an inferential cognition is that which is produced by the cognition that the probans qualified by invari-

able concomitance is a property (*dharma*) of the subject; inference is the means of obtaining that cognition; that [means] is the ascertainment (*parāmarśa*) of the probans.<sup>33</sup> This definition indicates that the truth of inferential cognition depends upon the truth of ascertainment. The latter truth depends upon the validity of the probans, which validity in turn is verified by invariable concomitance. In this sense invariable concomitance is closely related to the truth of inferential cognition.

The ascertainment of a probans is, as mentioned above, the cognition that the probans qualified by invariable concomitance occurs in the subject. The qualificand (*viśeṣya*) of this cognition is the subject, and the qualifier (*viśeṣaṇa*) the probans. Since a valid probans possesses the relation of invariable concomitance with its probandum,<sup>34</sup> the probans is qualified by invariable concomitance. To put it another way, invariable concomitance, which is regarded as the property (*dharma*) of a valid probans, is the qualifier of the probans. We can illustrate the connection among invariable concomitance, the probans, and the subject in Figure 4.

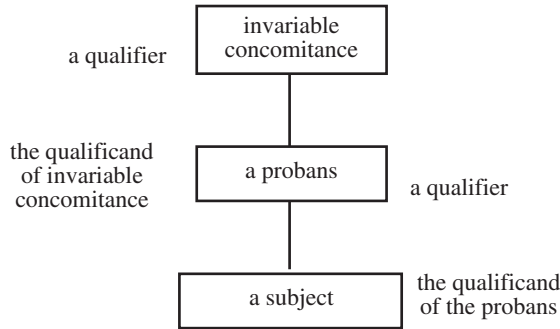


Figure 4.

In the ascertainment (*parāmarśa*), invariable concomitance, the qualifier of the probans, is grasped first; then, the probans, its qualificand, is grasped as the possessor of invariable concomitance; and finally the subject, the qualificand of the probans, is grasped as the

33. TC, Vol. 2, Pt. 1, p. 2,1-3: *tatra vyāptiviśiṣṭapakṣadharmatājanyaṃ jñānaṃ anumitiṣ tatkarāṇaṃ anumānaṃ tac ca liṅgaparāmarśo na tu parāmr̥ṣyamānaṃ liṅgaṃ iti vakṣyate.*

34. On this, see section 2.1 of the present paper.

possessor of the probans. The reason for this is as follows: in Nyāya-Vaiśeṣika epistemology all cognition is the cognition of the qualified (*viśiṣṭajñāna*); the qualified object consists of three ingredients called ‘qualifier’, ‘qualificand’, and ‘relation’; a qualifier is first grasped, and then its qualificand is grasped as its possessor.

At the end of text 1 the following doubt is addressed: does invariable concomitance really exist?; does the state of being invariable concomitance, the qualifier of invariable concomitance, really exist? Vāsudeva answers that the relation of invariable concomitance is accepted to explain daily behavior, in particular inference, and commences to interpret the first definition of invariable concomitance provided in Gaṅgeśa’s “Five definitions of Invariable Concomitance Section”.

TEXT 2: *avyāpyavṛttisādhyake saddhetāv avyāptivāraṇāyāha sādhyavadbhinneti.*

TRANSLATION: In order to avoid [the defect of] narrow-application [of the first definition given by Gaṅgeśa] to a valid probans whose probandum is an incomplete occurrent, [he states] ‘the possessor of the absence of a probandum’ [which is part of the second definition].

NOTES: Vāsudeva considers that Gaṅgeśa is not satisfied with the first definition, because it does not apply to a valid probans whose probandum is an incomplete occurrent (*avyāpyavṛttin*), and that Gaṅgeśa’s second definition does not suffer from this defect. We need to see why the first definition does not apply to such a valid probans. An inference which has that probans is, for example, “[This] is the possessor of contact, because [it possesses] substantiveness” (*saṃyogī dravyatvāt*).<sup>35</sup> Let us first confirm this inference is valid. The probandum of this inference is contact (*saṃyoga*);<sup>36</sup> the probans is substantiveness (*dravyatva*). Substantiveness exists only in a substance, and so

35. This inference is reconstructed from *Nyāyasiddhāntaṭīpa* (NSD), p. 66,1-3: *saṃyogādyavyāpyavṛtttau ca sādhye sādhyātyanībhāvasāmānādhikaranye ’pi dravyatvasya vyāpter iṣyamānatvāt* (When contact etc., which are incomplete occurrents, are probanda, substantiveness [the probans] possesses invariable concomitance [with the contact] in spite of [substantiveness] sharing a locus with the constant absence of the probandum).

36. The probandum is not the possessor of contact, but contact. On this, see Ingalls [1951: 35ff]; Wada [1998a: 157 n. 15] [2003: n. 7].

does contact. It is true that wherever substanteness exists contact also exists, and hence that inference is valid. The distinguishing feature of this inference is that the probandum is an incomplete occurrent. This occurrent is that which does not exist throughout its locus. On the contrary, a complete occurrent (*vyāpyavṛttin*) is that which exists throughout its locus, for example, generic properties (*sāmānya*, *jāti*).

Let us see why Gaṅgeśa's first definition does not apply to the valid probans of the above inference. It runs as follows: 'the non-occurrence [of a probans] in the possessor of the absence of the probandum', and we can illustrate its logical structure in Figure 5.

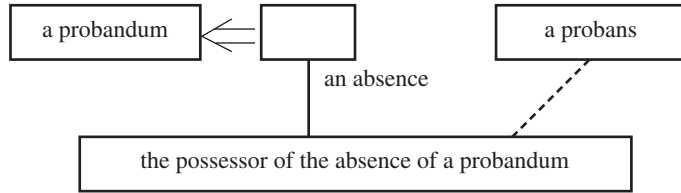


Figure 5.

(1) The probandum is contact. (2) The absence of the probandum is the absence of contact. (3) The possessor of this absence is, for example, a substance. Contact is an incomplete occurrent, so it can share a locus with its absence. To give an example, when we touch a pot with the hand, the pot possesses contact with the hand. But the parts of the pot which the hand does not touch possesses the absence of contact with the hand. Hence, we are allowed to assume the 'absence of contact' to exist in a substance although a substance can possess contact.<sup>37</sup> (4) In such a locus of this absence there exists substanteness. The condition stated in the first definition that the probans should not occur in the possessor of the absence of the probans is not met, and thus the definition does not apply to the valid probans. This is the defect of narrow-application. We can illustrate the connection among the entities referred to above in Figure 6.

37. Here we rule out contact with omnipresent substances (*vibhūdravya*) such as time (*kāla*), space (*ākāśa*), directions (*diś*), and souls (*ātman*).

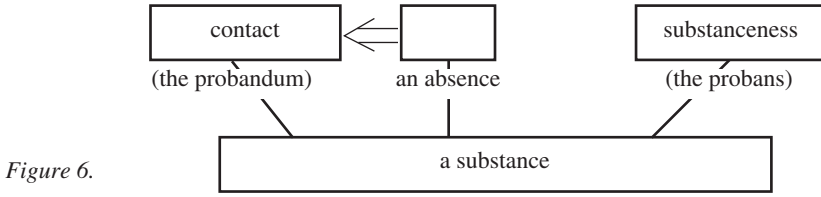
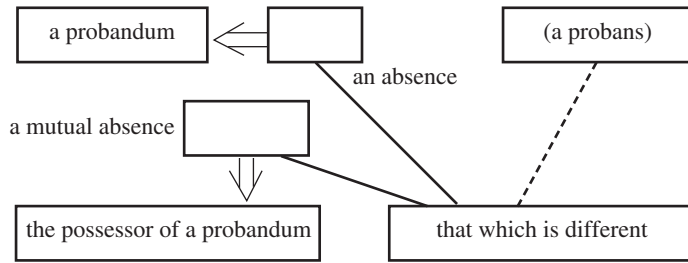


Figure 6.

We will next see how the second definition removes the above defect. It runs as follows: the non-occurrence of [a probans] in the possessor of the absence of the probandum which absence occurs in what is different from the possessor of the probandum. We can illustrate its logical structure in Figure 7.

Figure 7 (*The second definition*).

The application of this definition will start as follows. (1) The probandum is contact. (2) The possessor of the probandum is, for example, a substance such as a pot. (3) What is different from a substance is, for example, a quality (*guṇa*). Here we have to determine why we cannot take another substance, like cloth, as what is different from the possessor of the probandum (a substance). Vāsudeva seems to consider that the expression ‘what is different from the possessor of the probandum’ implies that the probandum occurs in its possessor but not in what is different from its possessor. Hence, that expression includes all substances and rules out all of them from what is different from the possessor of the probandum.<sup>38</sup> (4) Since contact does not

38. To be precise, it is still impossible to rule out all substances from what is different from the possessor. For example, if we regard the probandum as a particular

exist in a quality,<sup>39</sup> the absence of contact exists in a quality. (5) In a quality there is no substanteness, and substanteness is the probandum. All the conditions stated in the second definition are met, and thus it applies to the present valid probans. We can illustrate the connection among the entities referred to in the above application in Figure 8.

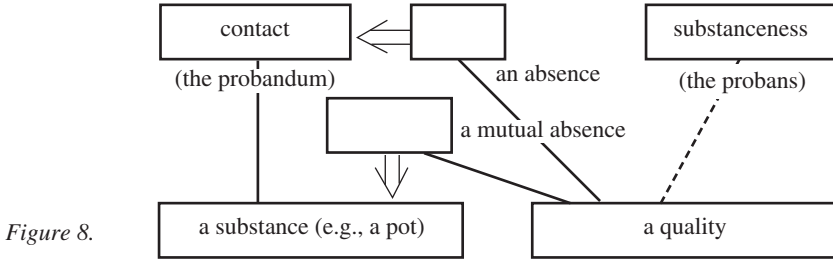


Figure 8.

TEXT 3a: *sādhyaḥbhāvapadasya vaiyyarthyaṃ āśaṅkyāha sādhyavad iti.*

TRANSLATION: Suspecting that the expression ‘the absence of the probandum’ [stated in the second definition] is purposeless, [Gaṅgeśa] states ‘the possessor of the probandum’ [which is part of the third definition].

NOTES: Vāsudeva explains the reason for presenting the third definition by pointing out the purposeless expression used in the second definition. The second definition runs as follows: ‘the non-occurrence of [a probans] in the possessor of the absence of the probandum which absence occurs in what is different from the possessor of the probandum’. To remove the expression ‘the absence of the probandum’ (*sādhyaḥbhāva*), which is regarded by Vāsudeva as purposeless, from this definition means to remove ‘the possessor of the absence of the probandum which absence occurs in’ (*sādhyaḥbhāvavad*). As a result,

---

contact, its possessor is a particular substance (A). What is different from this substance is another substance (B). To remove this possibility, it is necessary to indicate the number or quantity of the ‘possessor of the probandum’, for example, by means of introducing the concept of delimiter (*avacchedaka*).

39. A quality cannot possess another quality (Cf. *Vaiśeṣikasūtra*, 7.1.12: *aguṇovato dravyārambhāt karmaguṇā aguṇāḥ*). Contact is one of twenty-four kinds of quality, so contact cannot exist in any quality.



we can obtain ‘the non-occurrence of [a probans] in what is different from the possessor of the probandum’ (*sādhyaavadbhinnāvṛttitvaṃ*). In this obtained part ‘what is different from the possessor of the probandum’ (*sādhyaavadbhinna*) means ‘the locus of a mutual absence whose counterpositive is the possessor of the probandum’ (*sādhyaavatpratiyogikānyonyābhāvavat*). ‘The non-occurrence of [a probans] in what is different from the possessor’, which is the remaining part of the definition, means ‘the state [possessed by a probans] of having a locus different from the locus of a mutual absence’, i.e., ‘the state [possessed by a probans] of having no common locus with the locus of a mutual absence’ (*anyonyābhāvāsāmānādhikaraṇyam*). Thus, the whole second definition can be rewritten as ‘the state [possessed by a probans] of having a locus different from that of a mutual absence whose counterpositive is the possessor of the probandum’ (*sādhyaavatpratiyogikānyonyābhāvāsāmānādhikaraṇyam*), which is nothing more than the third definition. We can illustrate its structure in Figure 9. A comparison of Figures 7 and 9, which illustrate the structure of the second and third definitions respectively, shows that we can obtain the third definition by removing the specific expression from the second one.

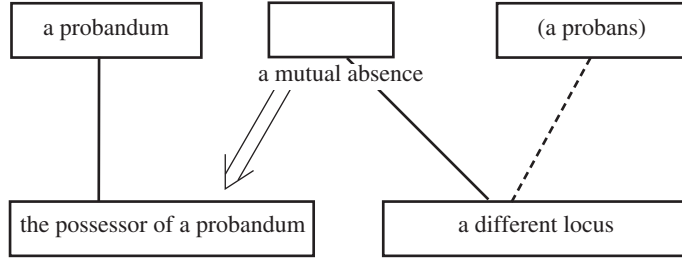


Figure 9 (The third definition).

TEXT 3b: *na cāyam abhāva etattvād<sup>(\*)</sup> ity atrāvyāptiḥ abhāvatvāśraya-pratiyogikānyonyābhāvānabhyupagamād iti vācyaṃ, anyonyābhāvavyavahāraniyāmakaṃ svarūpabhedam ādāyaiva tatra lakṣaṇāgateḥ.*

EDITORIAL NOTE: (\*) G. Bhattacharya [1969: 179,3], *etatvād*.

TRANSLATION: It should not be argued: in the case of [the inference] “this is an absence, because [it possesses] the state of being [called] ‘this’”, [the third definition suffers from the defect of] narrow-application; the reason [for this defect] is that mutual absence whose counterpositive is the locus of absenceness is not admitted. The reason [for our rejection of the above argument] is: based only on the determining factor of the use of the expression ‘mutual absence’, [which determining factor is] the particular nature [of mutual absence], the [third] definition [should] be applied in that [case].

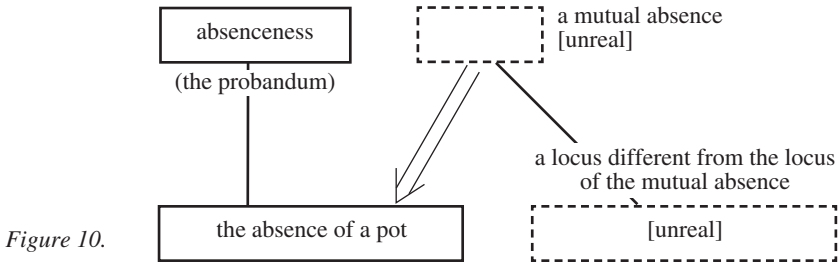
NOTES: In order to understand the above anticipated objection, we need to ascertain that, according to this objection, the third definition does not apply to the probans of the above valid inference referred to in text 3b. Let us first ascertain that the inference is valid. The probans of the inference is the state of being called ‘this’ (*etattva*); the probandum is absenceness (*abhāvatva*). Since any entity can be called ‘this’, it does not appear true that we prove the existence of absenceness from the existence of ‘the state of being called ‘this’’. But the objection implies that unfortunately the third definition does not apply in the present case, which indicates that the inference must be true. To fulfill the condition for proving the validity of the inference, we should assume that the state of being called ‘this’, which is the probans, exists only in the locus of absenceness, which is the probandum. In other words, we should assume that only absence is called ‘this’.<sup>40</sup>

We will next see why the third definition does not apply to the probans of that *valid* inference. (1) The probandum is absenceness. (2) The possessor of the probandum is, for example, the absence of a pot. (3) The mutual absence whose counterpositive is this absence is the mutual absence of the absence of a pot. If we take the view that the mutual absence of absence is not a real entity,<sup>41</sup> the application of the

40. When an inference has ‘the state of being called this’ or this-ness (*etattva*) as the probans, we have to assume a specific situation in order to interpret the inference in question as valid. For other inferences including such a probans, see Wada [1989: 24].

41. This seems to be the view of the Pābhākara Mīmāṃsā School, which does not accept mutual absence as a sub-division of absence. According to this school, absence is nothing but its locus, and a specific condition of this locus is called absence. The school accepts constant absence (*atyantābhāva*) but not mutual absence. This view of absence is referred to as the view of the Prābhākara School in the “Absence Chapter” (*Abhāvavāda*) of the *NSD* (p. 120,1-6) and in that of the *TC* (p. 900,6-8, or Matilal [1968: 177, Sanskrit Text No. 19]).

definition comes to an end here. Thus, the third definition does not apply to the present valid probans. We can illustrate the connection among the entities referred to up to and including step (3) in Figure 10. The rectangles drawn with a broken line in Figure 10 represent an entity whose existence we can never obtain in the ontological framework of Navya-nyāya.



Vāsudeva’s solution to this problem is to accept mutual absence as a sub-division of absence. He holds that we can differentiate mutual absence from constant absence (*atyantābhāva*) and so forth as other Nyāya and Vaiśeṣika philosophers do.<sup>42</sup> Then, we can continue the application from the above. (4) The possessor of the mutual absence of the absence of a pot is, for example, cloth. (5) Cloth is a positive entity (*bhāva*), so it is not called ‘this’ due to our beginning assumption. In other words, the state of being called ‘this’, i.e., the probans, does not exist in cloth. Accordingly, all the conditions stated in the third definition are fulfilled, and thus it applies to the valid probans. We can illustrate the connection among the entities referred to in the above process in Figure 11.

42. The expression/cognition “x is not y” refers to mutual absence, while “x does not exist (in y)” refers to constant absence, etc.

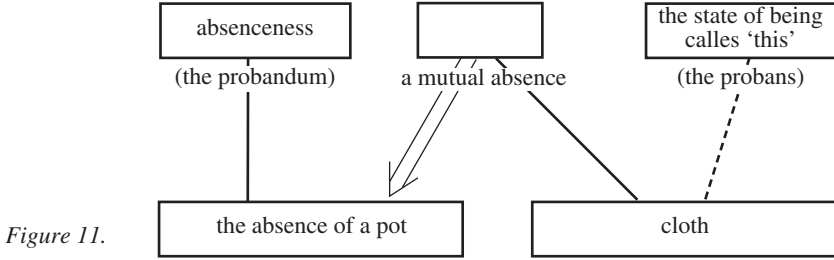


Figure 11.

(to be continued) <sup>43</sup>

## BIBLIOGRAPHY AND ABBREVIATIONS

## PRIMARY SOURCES:

*Navyanyāya-Bhāṣāpradīpaḥ* or *Brief Notes on the Modern Nyāya System of Philosophy and Its Technical Terms* of Maheśa Chandra Nyāyaratna, edited with the commentary *Suprabhā* and Bengali translation by K. Tarkacharya, Calcutta: Calcutta Sanskrit College, 1973.

*NSD*: *Nyāyasiddhāntadīpa*.

*Nyāyasiddhāntadīpa* (*NSD*) of Śāśadhara, in *Śāśadhara's Nyāyasiddhāntadīpa with Ṭippaṇa by Guṇaratnasūri*, edited by B.K. Matilal, L.D. Series 56, Ahmedabad: L.D. Institute of Indology, 1976.

*Tattvacintāmaṇi* (*TC*) of Gaṅgeśa Upādhyāya, in *Tattvacintāmaṇi of Gaṅgeśa Upādhyāya*, 4 Volumes, edited with extracts from the Commentaries of Mathurānātha Tarkavāgīśa and Jayadeva Miśra by Kāmākhyānātha Tarkavāgīśa, Vrajajivan Prachyabharati Granthamala 47, Delhi: Chaukhamba Sanskrit Pratishthan, 1990.

*Tattvacintāmaṇisāravalī* (*TCS*) of Vāsudeva Sārvabhauma in G. Bhattacharya [1967].

43. The present paper is followed by Wada [2004b].

*Tarkasaṃgraha* (TS) of Annambhaṭṭa, edited by Yashwant Vasudev Athalye and Mahadev Rajaram Bodas with the author's *Dīpikā* and Govardhana's *Nyāyabodhinī*, Bombay Sanskrit Series 55, Poona: Bhandarkar Oriental Research Institute, 1974.

TC: *Tattvacintāmaṇi*.

TCS: *Tattvacintāmaṇisārāvalī*.

TS: *Tarkasaṃgraha*.

*Vaiśeṣikasūtra* of Kaṇāda, edited by Jambuvijaya with the commentary of Candrānanda, Gaekwad's Oriental Series 136, Baroda: Oriental Institute, 1982.

## SECONDARY SOURCES:

Bhattacharya, Gopikamohan

1967 "Tattvacintāmaṇīṭikā", *Anvīkṣā: Research Journal of the Department of Sanskrit* 3(2)/4(1): 171-205.

1978 *Navya-Nyāya: Some Logical Problems in Historical Perspective*, Delhi: Bharatiya Vidya Prakashan.

Frauwaller, Erich

1966/1967/1970 "Raghunātha Śiromaṇi", *Wiener Zeitschrift für die Kunde Süd-und Ostasiens* 10: 86-207; 11: 140-208; 14: 161-208.

Goekoop, C.

1967 *The Logic of Invariable Concomitance in the Tattvacintāmaṇi*, Dordrecht: D. Reidel Publishing Company.

Ingalls, Daniel H.H.

1951 *Materials for the Study of Navya-Nyāya Logic*, Harvard Oriental Series 40, Cambridge, Mass.: Harvard University Press.

Ishitobi, Michiko

1978 "Navya-nyāya niokeru lakṣaṇa no Mondai" (Problems in lakṣaṇa in Navya-nyāya), *Indogaku Bukkyōgaku Kenkyū* (Journal of Indian and Buddhist Studies) 27(1): 465-467. (in Japanese)

Jhalakīkar, Bhīmācārya

1978 *Nyāyakośa or Dictionary of Technical Terms of Indian Philosophy*, Bombay Sanskrit Series 49, Poona: Bhandarkar Oriental Research Institute.

Matilal, B.K.

1968 *The Navya-nyāya Doctrine of Negation*, Harvard Oriental Series 46, Cambridge, Mass.: Harvard University Press.

1972 “Book Review: *The Logic of Invariable Concomitance in the Tattvacintāmaṇi* by C. Goekoop”, *Journal of American Oriental Society* 92(1): 169-173.

Miyamoto, Keiichi and Michiko Ishitobi

1998 *Indo Shinronrigakuha no Chishikiron – Manikana no Wayaku to Chūkai* – (The Body of Knowledge in Navya-nyāya: An Annotated Translation of the *Maṇikāṇa*), Tokyo: Sankibobusshorin. (in Japanese)

Potter, K.H. (ed.)

1977 *Encyclopedia of Indian Philosophies*, Vol. 2: Indian Metaphysics and Epistemology: The tradition of Nyāya-Vaiśeṣika up to Gaṅgeśa, Delhi: Motilal Banarsidass.

Potter, K.H. and S. Bhattacharyya (eds.)

1993 *Encyclopedia of Indian Philosophies*, Vol. 6: Indian Philosophical Analysis Nyāya-Vaiśeṣika from Gaṅgeśa to Raghunātha Śiromaṇi, Delhi: Motilal Banarsidass.

Tachikawa, Musashi

1981 *The Structure of the World in Udayana's Realism*, Dordrecht: D. Reidel Publishing Company.

Uno (Ishitobi), Michiko

1977 “Gaṅgeśa no Vyāptipañcaka nitsuite” (On Gaṅgeśa's Vyāptipañcaka), *Indogaku Bukkyōgaku Kenkyū* (Journal of Indian and Buddhist Studies) 25(2): 642-643. (in Japanese)

Vidyabhusana, Satis Chandra

1921 *A History of Indian Logic*, Calcutta: The Calcutta University.

Wada, Toshihiro

1989 “The Logical Validity of the Inferences in the Siddhāntalakṣaṇa Chapter of the *Tattvacintāmaṇidīdhiti*”, *Sambhāṣā* 11: 23-37.

1990 *Invariable Concomitance in Navya-Nyāya*, Sri Garib Dass Oriental Series 101, Delhi: Sri Satguru Publications.

1995a “The Structure of the World in Indian Realism and Its Schematization”, in M. Deshpande and S. Bhate (eds.), *Vācaspatyam: Pt. Vamanshastri Bhagavat Felicitation Volume*, Pune: Vaidika Samshodhana Mandala, pp. 150-158.

1995b “Gaṅgeśa and Mathurānātha on Siṃhavyāghralakṣaṇa of vyāpti (1)”, *Journal of Indian Philosophy* 23: 274-279.

1998a “Gaṅgeśa and Mathurānātha on Siṃhavyāghralakṣaṇa of vyāpti (3)”, *Journal of Indian Philosophy* 26: 131-159.

1998b “Gaṅgeśa and Mathurānātha on Siṃhavyāghralakṣaṇa of vyāpti (4)”, *Nagoya Studies in Indian Culture and Buddhism: Sambhāṣā* 19: 1-21.

1999a “Shin Niyāya Gakuha no Kigen to Bunseki Hōhō” (The Origin of Navya-nyāya and the Position of This School in the History of Indian Logic), *Indo-Shisōshi Kenkyū* (Studies in the History of Indian Thought) 11: 15-41. (in Japanese)

2000a “Liberation in Early Navya-Nyāya”, in S. Mayeda, Y. Matsunami, M. Tokunaga, and H. Marui (eds.), *The Way to Liberation: Indological Studies in Japan*, Japanese Studies on South Asia 5, Delhi: Munshiram Manoharlal, pp. 107-121.

2000b “Shinniyāya Gakuha Vāsudeva no Henjūgoteigi (1)” (Vāsudeva on the Vyāptipañcaka of Gaṅgeśa’s *Tattvacintāmaṇi* [1]), in T. Wada *et al* (eds.), *Abidaruma Bukkyō to Indo Shisō* (Abhidharma and Indian Thought: Prof. Junsho Kato Felicitation Volume), Tokyo: Shunjusha, pp. 473-483. (in Japanese)

2001 “The Analytical Method of Navya-nyāya”, *Journal of Indian Philosophy* 29: 519-530.

2003 “The Generation of Sanskrit Texts in the New School of Indian Logic (1)”, *Journal of Studies for the Integrated Text Science* 1(1): 63-80.

2004a “The Origin of Navya-nyāya and Its Place within the History of Indian Logic”, in S. Hino and T. Wada (eds.), *Three Mountains and Seven Rivers: Professor Doctor Musashi Tachikawa’s Felicitation Volume*, Delhi: Motilal Banarsidass, pp. 439-462.

2004b “The Generation of Sanskrit Texts in the New School of Indian Logic (2): From Gaṅgeśa’s *Tattvacintāmaṇi* to Its Commentaries”, in *Journal of Studies for the Integrated Text Science* 2(1): 43-58.

Yamamoto, Kazuhiko

1998 “Indo Shin-ronrigaku niokeru Shudaisei (pakṣatā) to Suironchi” (*Pakṣatā* and *Anumiti* in Navya-nyāya), *Indo-Shisōshi Kenkyū* (Studies in the History of Indian Thought) 10: 27-52. (in Japanese)

\* This paper was written under the auspices of the 21<sup>st</sup> century COE Program entitled ‘Studies for the Integrated Text Science’ and headed by Prof. Shoichi Sato, Graduate School of Letters, Nagoya University, which is financially supported by the Ministry of Education, Culture, Sports, Science, and Technology of the Japanese Government. I wish to thank Dr. Charles Pain for his editorial assistance.